



Case Study

ETSI Coal Evaluation Plant

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The objectives and testwork results of ETSI's Coal Evaluation Plant are summarized and a description of the principal components for preparation, dewatering handling and storing as well as water treatment are given.

ETSI Pipeline Project (EPP) is in the final stages of operating its Coal Evaluation Plant (CEP). The CEP facilities are located at the White Bluff power plant Arkansas Power & Light s 1,500 MW coal burning electric generating plant, 30 miles south of Little Rock.

The Powder River coal fueling the White Bluff power plant comes from Kerr McGee's Jacobs Ranch mine in Wyoming, which is also the origin of the ETSI transportation system. Other coals transported by ETSI would come from ARCO s Black Thunder mine Peabody's North Antelope mine and Carter's North Rawhide mine. Although the geographically dispersed coals are very similar the sensitivity of grinding and dewatering processes to certain coal characteristics spurred EPP's decision to evaluate the behavior of these coals in laboratory tests pilot plant tests and finally in full scale equipment tests.

The CEP throughput capacity was dictated by the largest commercially proven dewatering equipment, i.e. a 50 short ton per hour (TPH) 44-inch diameter by 132-inch long screen bowl centrifuge followed by a five foot wide by forty-foot long vibrating bed drier. This was to represent a typical module in the commercial

dewatering plant. The upstream grinding circuit, slurry storage tanks and test loop, and the downstream secondary dewatering water treatment and coal handling facilities were also sized for continuous production at 50 TPH.